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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/802,895	03/12/2001	Junichi Tsuji	Q63336	6637

7590 06/14/2005

SUGHRUE, MION, ZINN, MACPEAK & SEAS  
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EXAMINER
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THOMPSON, JAMES A

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/802,895

Applicant(s)

TSUJI, JUNICHI

Examiner

James A. Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 14-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments filed 13 January 2005 have been fully considered but they are not persuasive.

Regarding page 9, line 2 to page 10, line 3: Nakamura (US Patent 5,684,262) would clearly have suggested that tone conversion can be performed to the audio data stored in the camera system taught by Bell (US Patent 5,276,472). Nakamura merely uses tone conversion for a different purpose. Further, Applicant is reminded that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). The teachings of Nakamura, combined with the teachings of Bell, would clearly have taught applying tone conversion, as taught by Nakamura, to the stored audio data in the camera system of Bell. Clearly, a "genre dependent" type of tone conversion need not be applied, though one ordinary skill in the art could easily have modified Bell to apply "genre dependent" tone conversion based on the type of picture taken.

Regarding page 10, line 4 to page 11, line 8: The bar code information printed by the printer is an encoded form of the audio data that can be read by the proper digital playback device (column 5, lines 30-35 of Bell). Since Nakamura is relied upon to teach tone conversion, Bell alone clearly would

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not teach that the recorded audio data is tone converted. However, the combination of Bell and Nakamura does result in the recording of tone converted audio data.

*Applicant argues* that "their [Bell and Nakamura] objects differ in a fundamental way such that the processing complexities in Nakamura are wholly inappropriate for the bar scanning of Bell." *Examiner replies* that this is simply not true since Bell clearly has to process audio data before encoding said audio data in bar code form. Thus, the tone conversion process taught by Nakamura can easily be performed on the audio data before the resultant data is output in bar code form. The mere insertion of an additional audio processing step is trivial in the art and would certainly not require any substantial modification of the principle of operation of the system taught by Bell. Further, as stated above, though Bell and Nakamura each attempt to attain separate goals, one of ordinary skill in the art at the time of the invention would clearly have been motivated by Nakamura to add a tone conversion step. As stated on page 4, lines 3-5 of the previous office action, dated 08 October 2004, one of ordinary skill in the art at the time of the invention would be motivated to combine Nakamura with Bell since controlling the tone level based on the input level would improve the resultant voice recording. Thus, the system taught by Bell would be improved upon by combining the step of tone conversion taught by Nakamura.

**Regarding page 11, line 14 to page 12, line 17:** As with the tone conversion taught by Nakamura, the data processing taught by Leveque (US Patent 5,495,468) is performed in the system taught by Bell in view of Nakamura before output. Thus, the conversion data is a part of the digital output signal.

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Said digital output signal would then be output in bar code form, as taught by Bell. Again, this is a trivial modification to the system taught by Bell. Bell teaches outputting speech data in a digital bar code form via a printer. By applying the teachings of Nakamura, tone conversion is performed on the speech data before outputting. By further applying the teaching of Leveque, conversion data is added to the sound data before output. Thus, the resultant bar code output is a digital version of the tone converted speech data with the appropriate conversion data included. Again, simply adding small audio processing steps to the processing of an audio signal before output is a trivial matter for one of ordinary skill in the art at the time of the invention.

Further, in response to Applicant's argument that Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Examiner notes that the motivations to combine both Nakamura and Leveque are taken directly from passages found in Nakamura (such as on page 6, lines 2-5 of said previous office action) and Leveque (such as on page 6, line 29 to page 7, line 3 of Leveque), respectively, and not in any way from Applicant's disclosure.

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**Regarding page 12, line 19 to page 13, line 2:** As claim 14 has been demonstrated to be rendered obvious by the prior art, the dependencies of claims 17 and 18 upon claim 14 do not grant any patentability to claims 17 and 18.

**Regarding page 13, lines 3-17:** Applicant recites a portion of the passage of Kinoshita (US Patent 4,983,996) cited by Examiner (column 4, lines 58-63 of Kinoshita) on page 9, lines 19-21 of said previous office action. Applicant notes column 4, lines 58-61 of Kinoshita, but ignores the teaching provided on column 4, lines 61-63 of Kinoshita which specifically states "[t]he converted pattern data is delivered to the printing LCD circuit 28 through the control section." A printing LCD (acronym for "Liquid Crystal Display") circuit is clearly an optical printing circuit, as is well-known in the art.

**Regarding page 14, lines 1-12:** Hatada (US Patent 4,270,853) has not been relied upon for the teachings regarding instant printing. Hatada has been relied upon for the teachings regarding magnetic recording. Since the system taught by Bell in view of Nakamura is not an instant camera, the alleged problems with combining Hatada with Bell in view of Nakamura do not exist. Further, Applicant is reminded that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). The teachings of Hatada that have been relied upon can clearly be combined into the system of Bell in view of Nakamura.

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**Regarding page 14, line 13 to page 15, line 6:** Since the speech data is originally in audio form before outputting in bar code, as taught by Bell, or text form, as taught by Bernardi (US Patent 5,692,225), the speech/text converter and text data recorder taught by Bernardi can easily be combined into the system taught by Bell in view of Nakamura. Further, Applicant is using generalizations and has not attempted to demonstrate specifically why Applicant believes Bernardi to be uncombinable with Bell in view of Nakamura. Hence, Applicant's arguments are further considered a mere allegation of patentability and thus non-responsive.

**Regarding page 15, lines 7-18:** Since the claims from which claims 8, 23 and 25 depend have been shown to be rendered obvious by the prior art, and Applicant has given no substantive reasons why claims 8, 23 and 25 should otherwise be considered to patentably distinguish over the prior art, claims 8, 23 and 25 are therefore deemed to not contain allowable subject matter.

**Regarding page 16, lines 1-11:** The cancelled claims have been noted by Examiner.

#### ***Claim Groupings***

2. For the purpose of evaluating the claims over the prior art, the following claim groupings were made:
  - a. Claims 14-16 recite a printer which comprises all of the limitations of the image processing devices recited in claims 1-3, respectively. Claims 1-3 are therefore respectively discussed together with claims 14-16.
  - b. The printer of claim 20 comprises all of the limitations of claims 4 and 5. Claims 4, 5 and 20 are therefore discussed together.

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c. Claims 21-22 recite a printer which comprises all of the limitations of the image processing devices recited in claims 6-7, respectively. Claims 6-7 are therefore respectively discussed together with claims 21-22.

d. Claims 25-26 recite a printer which comprises all of the limitations of the image processing devices recited in claims 8-9, respectively. Claims 8-9 are therefore respectively discussed together with claims 25-26.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell (US Patent 5,276,472) in view of Nakamura (US Patent 5,684,262).

**Regarding claims 1 and 14:** Bell discloses a printer (figures 3 and 4 of Bell) for printing an image to recording material (figure 4(35) of Bell) according to image data (column 5, lines 11-14 of Bell). Figure 3 and figure 4 show different parts of the overall system taught by Bell (column 3, lines 3-11 of Bell).

Said printer comprises a speech data input unit (figure 3 (17) of Bell) for inputting speech data (column 4, lines 4-6 of Bell) associated with said image data for representing speech

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(column 4, lines 29-34 of Bell); and a speech data recorder (figure 4(43) of Bell) for recording the speech data to said recording material in association with said image (column 5, lines 30-35 of Bell).

Bell does not disclose expressly a voice tone converter for subjecting said speech data to tone conversion.

Nakamura discloses a voice tone converter (figure 1(16) of Nakamura) for subjecting speech data to tone conversion (column 5, lines 38-41 of Nakamura). Said voice tone converter performs operations under the control of a central processing unit (figure 1(21) and column 4, lines 50-51 of Nakamura).

Bell and Nakamura are combinable because they are from the same field of endeavor, namely the processing and recording of audio data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the tone converter taught by Nakamura in the printer taught by Bell. The recorded speech data would then be tone-converted speech data. The motivation for doing so would have been to control the tone level based on the input level (column 5, lines 41-47 of Nakamura), thus improving the recorded audio signal. Therefore, it would have been obvious to combine Nakamura with Bell to obtain the invention as specified in claims 1 and 14.

**Regarding claims 2 and 15:** Bell does not disclose expressly that said voice tone converter stores plural sets of tone mode information; and a voice tone selector for selecting one of said plural sets of said tone mode information, wherein said voice tone converter subjects said speech data to tone conversion according to said selected tone mode information.

Nakamura discloses that said voice tone converter stores plural sets of tone mode information (column 4, lines 59-64 of

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Nakamura). Since said voice tone converter can select between plural sets of tone mode information (column 4, lines 59-64 of Nakamura), it is inherent that said plural sets of tone mode information are stored in some fashion. Otherwise, said plural sets of tone mode information would not be accessible to said voice tone converter.

Nakamura further discloses a voice tone selector (figure 1(23) of Nakamura) for selecting one of said plural sets of said tone mode information (column 5, lines 8-10 of Nakamura), wherein said voice tone converter subjects said speech data to tone conversion according to said selected tone mode information (column 5, lines 10-15 of Nakamura).

Bell and Nakamura are combinable because they are from the same field of endeavor, namely the processing and recording of audio data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a voice tone selector to control the tone mode and the associated tone mode information, as taught by Nakamura. The motivation for doing so would have been to be able to select different desired effects for the audio input signal (column 6, lines 35-42 of Nakamura). Therefore, it would have been obvious to combine Nakamura with Bell to obtain the invention as specified in claims 2 and 15.

4. Claims 3, 9, 16 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell (US Patent 5,276,472) in view of Nakamura (US Patent 5,684,262) and Leveque (US Patent 5,495,468).

**Regarding claims 3 and 16:** Bell discloses sending speech data to said speech data recorder (column 4, lines 13-17 of Bell).

Bell does not disclose expressly that said voice tone converter generates conversion data for tone conversion control, and sends said conversion data to said speech data recorder; wherein said tone-converted speech data is constituted by said speech data before being converted and said conversion data.

Nakamura discloses that said voice tone converter generates conversion data for tone conversion control (column 5, lines 8-13 of Nakamura), and outputs both the tone-converted speech data and said speech data before being converted (column 4, lines 20-24 of Nakamura).

Bell and Nakamura are combinable because they are from the same field of endeavor, namely the processing and recording of audio data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to generate the tone conversion data and output both the tone-converted audio data and the unconverted audio data, as taught by Nakamura. The motivation for doing so would have been to compensate for the tone variations in the input signal (column 5, lines 41-47 of Nakamura). Therefore, it would have been obvious to combine Nakamura with Bell.

Bell in view of Nakamura does not disclose expressly that said voice tone converter sends said conversion data to said speech data recorder; wherein said tone-converted speech data is constituted by said speech data before being converted and said conversion data.

Leveque discloses sending conversion data (figure 5a(CT<sub>1</sub>) and column 5, lines 14-17 of Leveque) to an output device

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(column 5, lines 25-29 of Leveque); and that the audio data is constituted by said speech data before being converted (figure 5a(CV<sub>1</sub>); and column 5, lines 2-4 and lines 10-12 of Leveque) and said conversion data (column 5, lines 25-29 of Leveque). The conversion data (CT<sub>1</sub>...CT<sub>N</sub>) is output along with the compressed, original voice data (column 5, lines 25-29 of Leveque) and used to control the expanding of the compressed data (column 5, lines 52-55 of Leveque).

Bell in view of Nakamura is combinable with Leveque because they are from the same field of endeavor, namely the control and processing of audio data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to output the conversion data along with the audio data before being converted, as taught by Leveque, said conversion data and audio data being the conversion data and audio data taught by Bell in view of Nakamura. The motivation for doing so would have been that the conversion data can be saved in a different frequency band than the audio data (column 5, lines 12-17 of Leveque) and can therefore be saved in the same analog storage space as the audio data. Therefore, it would have been obvious to combine Leveque with Bell in view of Nakamura to obtain the invention as specified in claims 3 and 16.

**Regarding claims 9 and 26:** Bell discloses a printer (figures 3 and 4 of Bell) for printing an image to recording material (figure 4(35) of Bell) according to image data (column 5, lines 11-14 of Bell). Figure 3 and figure 4 show different parts of the overall system taught by Bell (column 3, lines 3-11 of Bell).

Said printer comprises a speech data input unit (figure 3 (17) of Bell) for inputting speech data (column 4, lines 4-6 of

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Bell) associated with said image data for representing speech (column 4, lines 29-34 of Bell); and a speech data recorder (figure 3(27) of Bell) for recording the speech data to said recording material in association with said image (column 4, lines 14-17 of Bell).

Bell does not disclose expressly a voice tone converter for generating conversion data for tone conversion control; and that said speech data controller records a combination of said speech data and said conversion data to said recording material.

Nakamura discloses a voice tone converter (figure 1(16) of Nakamura) generating conversion data for tone conversion control (column 5, lines 38-44 of Nakamura). Said voice tone converter performs operations under the control of a central processing unit (figure 1(21) and column 4, lines 50-51 of Nakamura).

Bell and Nakamura are combinable because they are from the same field of endeavor, namely the processing and recording of audio data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the tone converter taught by Nakamura in the printer taught by Bell. The motivation for doing so would have been to control the tone level based on the input level (column 5, lines 41-47 of Bell), thus improving the recorded audio signal. Therefore, it would have been obvious to combine Nakamura with Bell.

Bell in view of Nakamura does not disclose expressly that said speech data controller records a combination of said speech data and said conversion data to said recording material.

Leveque discloses outputting a combination of audio data and conversion data (figure 5a and column 5, lines 25-29 of Leveque). The conversion data ( $CT_1...CT_N$ ) is output along with the compressed, original voice data ( $CV_1...CV_2$ ) (column 5, lines 25-29

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of Leveque) and used to control the expanding of the compressed data (column 5, lines 52-55 of Leveque).

Bell in view of Nakamura is combinable with Leveque because they are from the same field of endeavor, namely the control and processing of audio data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to output the conversion data along with the audio data before being converted, as taught by Leveque, said conversion data and audio data being the conversion data and audio data taught by Bell in view of Nakamura and outputting said conversion data and said speech data by recording as taught by Bell. The motivation for doing so would have been that the conversion data can be saved in a different frequency band than the audio data (column 5, lines 12-17 of Leveque) and can therefore be saved in the same analog storage space as the audio data. Therefore, it would have been obvious to combine Leveque with Bell in view of Nakamura to obtain the invention as specified in claims 9 and 26.

5. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell (US Patent 5,276,472) in view of Nakamura (US Patent 5,684,262) and Kinoshita (US Patent 4,983,996).

**Regarding claim 17:** Bell discloses that said recording material is photosensitive material (column 5, lines 11-12 of Bell); and an image forming unit (figure 4(36) of Bell) for optically printing said image to said recording material (column 5, lines 11-14 of Bell). Exposing developed film onto a strip of photosensitive printing paper (column 5, lines 11-14 of Bell) is inherently an optical printing process. Said image forming unit further constituting said speech data recorder (column 5,

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lines 20-25 of Bell) to print said speech data (column 5, lines 30-35 of Bell).

Bell in view of Nakamura does not disclose expressly that said speech data is printed optically.

Kinoshita disclose optically printing speech data on a photosensitive recording material (column 4, lines 58-63 of Kinoshita).

Bell in view of Nakamura is combinable with Kinoshita because they are from the same field of endeavor, namely the control and processing of audio data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to record said speech data taught by Bell in an optical form, as taught by Kinoshita. The motivation for doing so would have been to be able to print the speech data directly onto the film (column 5, lines 1-3 of Kinoshita). Therefore, it would have been obvious to combine Kinoshita with Bell in view of Nakamura to obtain the invention as specified in claim 17.

**Regarding claim 18:** Bell discloses that said image forming unit prints said speech data in a bar code form (column 5, lines 35-38 of Bell).

6. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bell (US Patent 5,276,472) in view of Nakamura (US Patent 5,684,262) and Hatada (US Patent 4,270,853).

**Regarding claim 19:** Bell in view of Nakamura does not disclose expressly that said recording material includes a magnetic recording region, and said speech data recorder magnetically records said speech data.

Hatada discloses a speech data recorder (figure 5b(24) of Hatada) that magnetically records speech data on recording

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material that includes a magnetic recording region (figure 4b(8) and column 4, lines 29-33 of Hatada).

Bell in view of Nakamura is combinable with Hatada because they are from the same field of endeavor, namely the control and processing of audio data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a speech data recorder that magnetically records the speech data, as taught by Hatada. The motivation for doing so would have been to be able to record voice or sound onto the picture without having to carry a tape recorder (column 1, lines 28-32 of Hatada). Therefore, it would have been obvious to combine Hatada with Bell in view of Nakamura to obtain the invention as specified in claim 19.

7. Claims 4-7, 20-22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell (US Patent 5,276,472) in view of Nakamura (US Patent 5,684,262) and Bernardi (US Patent 5,692,225).

**Regarding claims 4, 5 and 20:** Bell in view of Nakamura does not disclose expressly a speech/text converter for converting said speech data from said speech data input unit into text data for representing text; and a text data recorder for recording said text data to said recording material in association with said image.

Bernardi discloses a speech/text converter (figure 5(52) of Bernardi) for converting said speech data from said speech data input unit into text data for representing text (column 9, lines 1-6 of Bernardi); and a text data recorder (figure 5(43) of Bernardi) for recording said text data to said recording

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material in association with said image (column 9, lines 6-9 of Bernardi).

Bell in view of Nakamura is combinable with Bernardi because they are from the same field of endeavor, namely the control and processing of audio data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the speech/text converter and text data recorder taught by Bernardi in the printer taught by Bell in view of Nakamura. The motivation for doing so would have been to be able to make printed annotations based on spoken notes (column 9, lines 37-40 of Bernardi). Therefore, it would have been obvious to combine Bernardi with Bell in view of Nakamura to obtain the invention as specified in claims 4, 5 and 20.

**Regarding claims 6 and 21:** Bell in view of Nakamura does not disclose expressly a text data input unit, externally operable, for inputting text data for representing text; and a text data recorder for recording said text data to said recording material in association with said image.

Bernardi discloses a text data input unit (figure 7(62) of Bernardi), externally operable, for inputting text data for representing text (column 10, lines 21-26 of Bernardi); and a text data recorder (figure 7(43) of Bernardi) for recording said text data to said recording material in association with said image (column 9, lines 3-9 of Bernardi). Said text data input unit scans in a card that must be put into said text data input unit (column 10, lines 22-23 of Bernardi). Therefore, said text data input unit is externally operable.

Bell in view of Nakamura is combinable with Bernardi because they are from the same field of endeavor, namely the

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control and processing of audio data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the text data input unit and text data recorder taught by Bernardi in the printer taught by Bell in view of Nakamura. The motivation for doing so would have been to be able to make annotations to the resulting printed image from a simple hand-written card (column 10, lines 35-41 of Bernardi). Therefore, it would have been obvious to combine Bernardi with Bell in view of Nakamura to obtain the invention as specified in claims 6 and 21.

**Further regarding claims 7 and 22:** Bernardi discloses that said text data includes at least one of a letter, a number, and a sign (column 10, lines 22-24 of Bernardi). Optical character recognition (column 10, lines 22-24 of Bernardi) recognizes at least letters and numbers, since letters and numbers are part of the ASCII set.

**Regarding claim 24:** Bell discloses that said text data recorder prints said text data by use of ink, toner or dye (column 5, lines 35-36 of Bell).

8. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bell (US Patent 5,276,472) in view of Nakamura (US Patent 5,684,262), Bernardi (US Patent 5,692,225), and Kinoshita (US Patent 4,983,996).

**Regarding claim 23:** Bell discloses that said recording material is photosensitive material (column 5, lines 11-12 of Bell); and an image forming unit (figure 4(36) of Bell) for optically printing said image to said recording material (column 5, lines 11-14 of Bell). Exposing developed film onto a strip

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of photosensitive printing paper (column 5, lines 11-14 of Bell) is inherently an optical printing process.

Bell in view of Nakamura does not disclose expressly that said image forming unit is further constituted by said text data recorder, which optically prints said text data.

Bernardi discloses a text data recorder (figure 7(43) of Bernardi) which prints said text data (column 9, lines 3-9 of Bernardi).

Bell in view of Nakamura is combinable with Bernardi because they are from the same field of endeavor, namely the control and processing of audio data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the text data recorder taught by Bernardi in the printer taught by Bell in view of Nakamura. The motivation for doing so would have been to be able to make annotations to the resulting printed image from a simple handwritten card (column 10, lines 35-41 of Bernardi). Therefore, it would have been obvious to combine Bernardi with Bell in view of Nakamura.

Bernardi does not disclose expressly that said text data is printed optically.

Kinoshita disclose optically printing data on a photosensitive recording material (column 4, lines 58-63 of Kinoshita).

Bell in view of Nakamura and Bernardi is combinable with Kinoshita because they are from the same field of endeavor, namely the control and processing of audio data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to print said alphanumeric text data taught by Bernardi using optical means, as taught by Kinoshita.

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The motivation for doing so would have been to be able to print the text data directly onto the film (column 5, lines 1-3 of Kinoshita). Therefore, it would have been obvious to combine Kinoshita with Bell in view of Nakamura to obtain the invention as specified in claim 23.

9. Claims 8 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell (US Patent 5,276,472) in view of Nakamura (US Patent 5,684,262), Bernardi (US Patent 5,692,225) and Spies (US Patent 6,035,273).

**Regarding claims 8 and 25:** Bell in view of Nakamura does not disclose expressly a text data input unit for inputting text data associated with said image data for representing text; and a text/speech converter for converting said text data into speech data, and sending said speech data to said speech data recorder.

Bernardi discloses a text data input unit (figure 7(62) of Bernardi) for inputting text data (column 10, lines 21-24 of Bernardi) associated with said image data (column 10, lines 6-9 of Bernardi) for representing text (column 10, lines 23-26 of Bernardi).

Bell in view of Nakamura is combinable with Bernardi because they are from the same field of endeavor, namely the control and processing of audio data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the text data input unit taught by Bernardi in the printer taught by Bell in view of Nakamura. The motivation for doing so would have been to be able to make annotations to the resulting printed image from a simple handwritten card (column 10, lines 35-41 of Bernardi). Therefore,

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it would have been obvious to combine Bernardi with Bell in view of Nakamura.

Bell in view of Nakamura and Bernardi does not disclose expressly a text/speech converter for converting said text data into speech data, and sending said speech data to said speech data recorder.

Spies discloses a text/speech converter (figure 1(32) of Spies) for converting said text data into speech data (column 4, lines 60-62 of Spies), and sending said speech data to an output device (figure 1(10); column 3, lines 20-22 and column 4, lines 3-8 of Spies).

Bell in view of Nakamura and Bernardi is combinable with Spies because they are from the same field of endeavor, namely the control and processing of audio data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the text/speech converter taught by Spies to convert the text read by the text data input unit taught by Bernardi into speech. The motivation for doing so would have been to provide an audial reproduction of the annotations (column 5, lines 1-4 of Spies). Therefore, it would have been obvious to combine Spies with Bell in view of Nakamura and Bernardi to obtain the invention as specified in claims 8 and 25.

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**Conclusion**

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James A. Thompson  
Examiner  
Art Unit 2624

JAT  
12 May 2005



THOMAS D.  
~~THOMAS~~ LEE  
PRIMARY EXAMINER